

REMARKS

The Examiner has not explicitly indicated that the drawings filed with the application have been accepted. Applicants respectfully request that the Examiner acknowledge such an acceptance in the next PTO communication.

In the present Amendment, claim 1 has been amended to correct an obvious typographical error, and to replace “using a device for fixing the image on the printing plate precursor and fixing the oil-based ink image by heating” with --fixing the oil-based ink image on the printing plate precursor by a heat-roll heating--. This amendment is supported by the specification, for example, at page 16, lines 4-6.

New claim 18 has been added. Claim 18 is supported by the specification, for example, at page 16, lines 10-11.

No new matter has been added, and thus entry of the present Amendment is respectfully submitted to be proper. Upon entry of the Amendment, claims 1, 2 and 4-18 will be all the claims pending in the application.

Claims 1, 2 and 4-17 have been objected to as allegedly being indefinite.

In response, Applicants have in the Amendment, amended independent claim 1 to replace “using a device for fixing the image on the printing plate precursor and fixing the oil-based ink image by heating” with --fixing the oil-based ink image on the printing plate precursor by a heat-roll heating--. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection.

Claims 1, 2 and 5-7 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato et al (JP 10-204,355) in view of Ishii et al (JP 10-203,039) and Love, III (U.S. 4,718,340). Further, claim 4 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP '355 in view of JP '039 and Love III, and further in view of Masaaki (JP 58-147,373). Still further, claims 8-14 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato et al in view of Ishii et al and Love III, and further in view of Arway et al (U.S. 4,555,712). Still further, claim 15 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato et al in view of Ishii et al and Love III, and further in view of Ikkatai (U.S. 5,363,132). Still further, claim 16 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato et al in view of Ishii et al and Love, and further in view of Gasparrini (U.S. 5,322,015). Lastly, claims 12 and 17 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato et al in view of Ishii et al and Love III, and further in view of Miura et al (U.S. 5,988,782).

Applicants respectfully submit that the amended claims are not obvious over the cited references for the following reasons.

(1) Kato et al

Kato et al relates to an oil-based ink composition for an ink-jet (recording system), which is entirely different from a method of lithographic printing of the present invention.

In Kato et al, the offset printing plate is prepared using the oil-based ink for the ink-jet (recording system), which is concretely described in the drawing (Fig. 1, [0063] to [0083]). Specifically, based on the information of the image to be formed, the droplets of the ink are

sprayed from the head 10 of the ink-jet recording device 1 onto the master 2 to prepare the plate-making master in which the image has been formed. Subsequently, the desensitizing treatment is carried out to prepare the printing plate. Also, it is described that in offset printing using the obtained printing plate, printing of about 10,000 sheets can be performed.

Further, in Examples 1 to 15 of Kato et al ([0097] to [0137]) exemplify the preparation of printing plate and the printing. As described, the printing is carried out using the obtained printing plate by the wholly automatic printing press (AM-2850) ([0101]).

In view of the above, it is clear that in Kato et al, the preparation of the printing plate and the printing are carried out by using separate printing presses.

That is, Kato et al do not disclose a method of lithographic printing which comprises forming the image on the printing plate precursor mounted on the plate cylinder of the printing press in the ink-jet system in which the oil-based ink is ejected utilizing an electrostatic field to form the image and to prepare the printing plate, and then carrying out the printing with the printing press, using the obtained printing plate as it is, as recited in the present claims.

Particularly, Kato et al does not disclose or suggest a method in which the preparation of the printing plate and the printing are carried out in the specific ink-jet recording system on the printing press according to the present invention.

This difference between Kato et al and the present invention is further noted below.

Kato et al describes at page 7, that an ink-jet apparatus is an apparatus for obtaining a plate-making master, i.e., a plate-making printing plate or a printing plate precursor, and that the

image is formed using this ink-jet apparatus by directly ejecting an ink on the master from an ink-jet head ([0065] to [0071]).

Further, Kato et al describes at page 8, that an off-set printing can be achieved by using dampening water (i.e., a fountain solution) using this master (i.e., the printing plate having the image) ([0083]). In off-set printing, by using dampening water, etc., the ink is transferred to a paper via a blanket to form the image. However, in an ink-jet apparatus, dampening water is not used. As shown in Fig. 1, the image is directly formed on the master without using a blanket. Therefore, this off-set printing is carried out using a printing press which is clearly different from the ink-jet apparatus.

Still further, it is described in Example 1 of Kato et al, that by passing through a plate subjected to plate-making (i.e., a printing plate) obtained by using the ink-jet apparatus into the printing press, the printing is carried out using an ink for the off-set printing (page 10, [0100] to [0101]). The printing is carried out similarly in other Examples.

In view of the above, it is clear that in Kato et al, the plate-making and the (lithographic) printing were carried out separately.

Further, Kato et al discloses a non-contact fixation. On the other hand, in the present invention, the heat-roll fixation, which is a contact fixation, is applied after an image formation to prolong the press life and to achieve a high quality image.

(2) Love III

Love III discloses a printing method in which the image is directly formed on the surface of the plate cylinder of the printing press by using the oil-soluble ink, and the printing plate

precursor is formed on the cylinder (i.e., with the on-press system). In this method, the plate cylinder itself becomes the printing plate.

Applicants respectfully submit that Love III discloses merely various image drawing methods, which are entirely different from the method of the present invention in which the printing plate precursor is mounted on the plate cylinder. That is, in the present invention, the plate cylinder, is a separate factor from the printing plate precursor. In addition, in the present invention, the oil-based ink image which has been image-drawn is subjected to heating fixation to obtain the printing plate having a higher image-quality (pages 9-14 and 16).

(3) Kato et al and Love III

Applicants respectfully submit that there is no motivation to combine Kato et al and Love III, because Kato et al does not disclose or suggest the formation of the printing plate by the on-press system used in Love III.

Further, Applicants respectfully submit that even if there might be a motivation to combine Kato et al and other cited references, the combination does not result in the present invention, because the other cited references do not make up for the deficiencies of Kato et al.

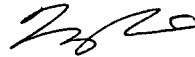
That is, the present invention is not obvious over the cited references, and thus the rejections should be withdrawn.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Appln. No. 09/396,238

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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